1:Lipkind E-5 (1937) 1948 SP9 Caraja SP9

is planted in September, when the first rains come, and manioc shortly after. There is little cultivation beyond weeding. The basic crop is manioc, both the sweet and bitter varieties being cultivated, with maize next in importance. Four varieties each of sweet and bitter manioc and 10 varieties of maize are cultivated. Other crops are: Five varieties of potatoes, two varieties of cara, four varieties of watermelon, three varieties of squash, four varieties of beans, and ten varieties of bananas, as well as peanuts, urucú, tobacco, cotton, calabashes, sugarcane, yams, peppers, pineapples, and papayas. Men do all the work with a little assistance in harvesting and weeding from older women. The *Javahé* are more industrious farmers than the other *Carajá*, cultivating extensive plantations.

Collecting.—A large number of vegetable products are gathered for use as food, medicine, and raw material for manufacture, but only a few are of great importance. The babassu and the buritĭ palms, used for food and textile materials, are among the most valuable. The taquara reed is sought after for arrows. Turtle eggs are a significant item of food during the dry season. Honey is indispensable for feasting.

Hunting.—Although the *Carajá* are passionate hunters, very few of the animals available in the region are eaten. Only the peccary is really sought and constitutes a sizable item in the larder. The other animals that are eaten—the cutia, coati, woodsdeer, monkey, iguana, and a few birds, such as the mutum, jao, and jacu—are killed when encountered but are not eaten by everyone. Peccaries are hunted in a communal drive, the most favorable time being shortly after the beginning of the rainy season when large droves are trapped on islands.

The chief purpose of hunting is to get feathers, and the most desirable birds are the various parrots, herons, the male stork, and the flamingo. The nesting of valuable birds is carefully watched, and the young are stolen and tamed. Feathers stored in small baskets almost constitute a currency, because they are readily negotiable at all times and maintain a stable value.

The principal weapons are the bow and club. The bow, made of a variety of woods but with a preference for juari when available, is round in cross section and about 6 feet (2 m.) long. The arrow is preferably of taquara reed and variously tipped with wood, animal bone, or fish bone. Clubs are beautifully fashioned of heavy hardwood, decorated with delicate carving, and are swung and thrown with equal skill. The lance is now used only for ceremonial purposes.

Fishing.—Fish is the most important food supply. Trapping and drugging fish with timbo is a communal affair; individuals fish with the bow and arrow. There is occasional night fishing, with spearing by torchlight. The pirarucu is killed by harpoon. The hook and line is little used, and apparently was borrowed recently from the Neo-Brazilians.

Food preparation.—Manioc is peeled, grated, squeezed out by hand, and cooked into a soup. When the soup cools, it is masticated for a few

000 /3 cont./
forms are only the result of particularly high personal talent.

531 128 Decorative art is limited to the application of geometric patterns. These patterns, which are usually interpreted as animals, are borrowed from the plaiting technique. We shall therefore first of all look at the decorations borrowed from the plaiting technique which are on the plaited work itself, then at their transference in carving on gourd utensils, and at the same time we shall take into consideration the great number of such patterns which the Indians drew in the sketchbook for me. Only then will the other decorations, ordinarily in carving and poker work, be dealt with.

531 462 Decorative artistic activity is limited solely to the men; only they know how to execute the patterns. I have seen only a few clay tobacco pipes, two spindle whorls, some modern clay bowls, a doll's apron, and a mat which had been decorated by women. These objects show completely different patterns, though [177] it must be noted that they have apparently taken over the clay tobacco pipes and clay bowls only very recently from the Brazilians. *532 462 So here the woman stands completely behind the man. It is the same in free art. There only the stylized clay figures are made by the women, whereas the more lively figures in other material and the drawings are produced by the men. So here, too, we find 184 462 the striking pre-eminence of the man over the woman. Thus it seems as though among the Karajá the man is more artistically inclined than the woman, whereas in technical skills the two sexes are probably equal.

A. Representative Art

1. Plastic Art

*532 [524] Plastic representations are encountered frequently; they are produced only for play or as toys.

/3 cont./

a) Plaiting with Caguassu Pinnae

(Plate I) 1/A

*532 285 In plaiting the form is most strongly dependent on the material, which during the plaiting makes all kinds of bends and angles, and these are adapted only with difficulty to the form to be represented. The artist cannot create so freely as, for example, in clay or wax. Therefore if a figure coming very close to the natural form is achieved with plaiting, this must be acknowledged as very high artistic skill.

The Karajá Indians are basically good plaiters; all their baskets, mats, and the plaiting around objects are neatly and tastefully executed. It is therefore not surprising that they have also reached a high level in plaiting figures. It is to be noted in this connection that the /4/ plaiting of figures is practiced only [462] by the male sex, just as only the objects plaited by men show patterns, whereas all the plaited work produced by women is unpatterned.

*532 285 123 The plaited figures described below were made by boys and youths as a pastime, in part before my eyes and on their own initiative. Thus, for example, I obtained those of the Savajé when we were holding a conversation hour in the evening by the mask hut, and I, in order to stimulate the people, pulled a leaf pinna from my sitting-mat and began to plait. Scarcely had I begun than the young people immediately followed my example and produced for me a great number of interesting figures.

*532 285 [171] The method of plaiting is in part the one customary among us. For example, figures such as the small basket (Fig. 1 /see p. 47 /) and the honeycombs (Fig. 2 /see p.47 /) are also made in our kindergartens.

The reproductions of the rattlesnake (Fig. 3 /see p.47/), the tobacco pipe (Fig. 4 /see p.47 /), and the very accomplished representations of birds (Fig. 5 a and b /see p.47 /), however, are already more complicated.

1/A [see p. 47--Analyst]

/4 cont./

*532 205 831 Procreation and the genital organs play a large role in the thought world of the Indians. Thus it is not surprising to find representations of the sexual parts also. They are conscientiously affixed everywhere, on dolls, wax figures, tree and sand drawings. The male youth, above all, delight in such representations, in all harmlessness, and especially enjoy reproducing the penis in plaited work. Fig. 6 /see p.47 / represents such a penis. It was characteristic of the harmlessness of the people that, when I asked what this was supposed to be, a woman who happened to be present held out a wax cylinder of a small doll, about 30 centimeters in length, as a penis.

*532 205 The meaning of the following figures of the Savajé is unknown: Fig. 7 (djēdjắ) /see p.47 /, Fig. 8 (dālắ, kōdĭ̆ĕ́, probably representing the black vulture (urubu)) /see p. 47 /, Fig. 9 (ĭdjōlālĭ̆ĕ́, a very elegant piece of work; the method of production of this puzzling figure is unkown to me /see p. 47/), Fig. 10 /see p. 47 /, and Fig. 11 a and b (kŏ́dūdŭ́ or ĭnaûinĭ́; a, position of rest; b, tensed) /see p. 47 /. This last figure is plaited like the preceding ones, but in such a way that the leaf ribs form one edge. If one pulls on the part of the leaf stalk which projects out free at the bottom of the plaiting, then the upper tip makes nodding movements.

*532 b) Wood carvings,

(Plate II) 1/1

[462] only rarely encountered and likewise made by men, are somewhat less dependent on the material. The form can therefore already be better reproduced.

I obtained only one wooden doll (Fig. 12 /see p. 48 /), which represents a maiden. It is made out of a /Fig. 14 a and b and Fig. 15 appear here/ 2/1 forked piece of wood in such a way that the forked twigs form the two legs, and the trunk forms the body. Arms are thus absent and are not painted on either. The head is set off, nose and forehead are carved in relief, eyes and mouth

1/1 [see p. 48--Analyst]
2/1 [Figs. 14a & b & 15 appear on p. 7--Analyst]

/5 cont./ Then later

*532 831 on a tree in the forest near the Šavajé settlement, I saw the adjacent relief of the female sexual organs (Fig. 15 /see p. 7/) driven in with an ax. It had been hewed there previously by a Karajá accompanying me.

c) Clay Figures (lik̆ók̆ó)

(Plates II-IV)

*532 [524] [462] Clay is much more pliable; in it forms can be reproduced true to nature. The clay figures, which are made by the women and serve as toys for the girls, include only representations of human figures of both sexes and of all ages; they represent the following tribes: Karajá, Šavajé, Kayapó, and finally the Dōbā̆i on the Rio das Mortes. Such clay figures were present in large numbers in all [126] villages and were offered to me everywhere. Wherever the stock was exhausted, some were quickly made for me, which, however, I seldom bought because they showed exactly the same typical forms as the figures on hand, that is to say, they showed no personal influence of any kind. Only once did I receive a portrait, the representation of the grandmother bent with age (Plate III, Fig. 42 /see p.49 /). Now it is very striking to observe that these representations are completely stylized. To be sure, several levels can be distinguished here, but only in the case of a few examples is a reasonably accurate reproduction of the shape of the human body achieved.

*532 323 Before I discuss the forms themselves, I wish to report briefly on the method used to produce these figures. Bodies, legs, and head are made from a lump of clay. The fat buttocks and the penis are put on separately; the navel is bored in with a wooden stick. Then the lines for the later painting are pressed in with a slender bamboo rod by drawing the rod lightly over the soft clay and at the same time exerting light pressure at regular intervals. In this way lines with small holes strung along in a row like beads are produced. When the figure is prepared to this extent, it is put in the sun to dry; the figures are only very rarely fired. Then the next stage

/16 cont./

*532 126 153 could not create anything on their own initiative, but had to have assignments set by me; others (and they were in the majority) filled page after page with ever new figures as they happened to occur to them. In the following those drawn on demand are marked by *).

In this way I obtained representations of human beings, animals, birds, fish, reptiles, insects, trees, objects, constellations, and other things. They claimed unanimously that they could not draw human beings, but finally provided me with pictures when I asked for a portrait of myself. Of animals they liked best to draw birds and fish. Pictures of trees are very rare. They usually only produced objects on request. They liked most of all to produce patterns (see decorations /pp.42 ff./).

[412] [513] Drawings were made only by the male sex, usually in bed by candlelight in the evenings. The significance of individual figures was immediately ascertained through questions and written down next to each figure.

*522 We distinguish between three kinds of drawings:

1. Simple line drawing, 2. outline drawing, 3. filled-in figures.

The relationship of the simple line drawing to the other kinds has not yet been determined because of the lack of comparative material. I should like to discuss it here first of all. With regard to the other two kinds, it is certain that the filled-in figures represent a higher stage than the outline drawings (2).

[113] 2. Cf. Dr. S. Levinstein, Kinderzeichnungen bis zum 14. Lebensjahr /Children's Drawings up to the 14th Year/, R. Voigtländer's Publishing House, Leipzig, 1905.

Almost two-thirds of all the drawings are filled-in figures, whereas simple line drawings make up only one quarter, outline drawings only one seventh of the material. The Karajá therefore stand on a very high level artistically.

The line drawings are all made with a pencil, the outline drawings with pencil and colored crayon, the filled-in figures

/23 cont./

531 whereas in general they did not recognize the figures and drawings created from free imagination, but asked me first what the latter were supposed to mean. Thus, these are well-established, apparently very old decorations.

We find the decorations plaited on fans and baskets, on the handles of crotchet needles, on lances, clubs, bows, arrows, rattles, combs; carved on whole- and half-gourd containers, gourd rattles, ear rods; pictured by poker work on gourd ladles and small gourds, and by color on gourd ladles.

●[482] All these objects are made by the men; they are the bearers of this art. The women, too, sometimes decorate objects made by them, such as mats, spinning whorls, bast aprons. The patterns, however, in general differ from those of the men. Re-
[172] cently the women have gone over to decorating tobacco pipes and clay vessels under Brazilian influence; the decorations used for this, however, are quite alien, probably taken over from the Brazilians.

531 The patterns with which the Indians paint their bodies
302 have nothing in common with plaiting patterns. The patterns sometimes painted on the thighs appear similar to the plaiting patterns; they are probably connected with the masked dances
[535] at which we find similar decorations, usually depicting animals, on the cylinder masks and bask aprons.

531 The animal patterns are not line patterns, but surface
[285] patterns; thus, in plaiting, the strips plaited in one direction represent the pattern; in the same way, in the sketches, it is not the lines which stand for the pattern, but the surfaces enclosed by them. This follows from the fact that in the case of carved patterns these surfaces are in relief or indented, but in any case contrasted as surfaces from the background; in the same way in the sketches the surfaces are sometimes set off by dots or dashes. Only it is difficult in this case to decide which of the surfaces represents the background and which the pattern; here only inquiry among the Indians helps. For the characteristic features do not penetrate our awareness at all, accustomed as we are to seeing such patterns in terms of lines and not surfaces.

/23 cont./

531 In some patterns I was successful in separating pattern and back-
[128] ground from each other; others still await satisfactory investiga-
tion.

531 These patterns are made in the following manner. On
285 baskets, fans, etc., they are produced simply through different,
diagonal plaiting of the leaf pinnae. For plaiting around some-
thing with yellow cane and black embira, the black embira is
plaited horizontally in spirals through the strips of cane hanging
531 down vertically. Carved decorations are made with the knife;
322 the latter is then held almost vertically to the surface to be
carved, and /24/ in this way small pieces of the upper layer are
chipped off broadside with the point. Finer and deeper lines are
carved out naturally. In poker work a splinter of cane is used
as the cautery, which is made to glow on an adjacent block of
wood and then quickly pressed on the spot concerned. This is,
[462] of course, very slow work, which is practiced almost exclusively
517 by the male sex, apparently only for fun.

531 The Indians always drew the patterns in the sketchbook on
[153] their own initiative. When they had barely drawn some figures,
they would already go over to the patterns. Many refused to draw
figures altogether, but just treated themselves to making patterns.
531 Now it was extremely interesting to observe how the people ar-
151 ranged the patterns. As an example I shall take the one in Fig.
199 (Plate X /see p. 56/). First of all the space was divided up
by four vertical lines according to exact calculation. The Indians
sitting nearby already knew which decoration the artist wanted to
draw, without the latter saying anything. Then each new line to
be drawn was discussed in detail beforehand, criticized afterwards.
Thus, the sketch was put together as a common task. During this
the lines, once the people were completely clear about direction
531 and length, were drawn with a quick sure stroke. It should further
151 be noted that the Indians had observed how I wrote my remarks
153 about artist and pattern on the edge of the page, and now on
their own initiative they left a narrow margin free on one side, as
I ascertained through questions, so that I could write on it. They

/27 cont./

531 horizontal sectioning (Fig. 210a to c /see p. 60/), vertical sectioning (Fig. 211a and b /see p. 60/).

3. The half-gourds and whole gourds decorated by painting have a quite different character.

[4/15] Only one gourd ladle colored with paint is found (Fig. 212 /see p. 60/). It shows a black edge, simple zigzag line, and a cross in the middle.

/28/ All the others show poker work. Fig. 213 (Plate XI /see p. 57/) represents the first attempt at this by a small girl. The gourd ladles are very diversely decorated. The edge has a row of triangles (Fig. 214 /see p. 60/), or tree-like branched figures usually extend from it toward the center (Fig. 215 a to c /see p. 62/). /Fig. 221 appears here./ 2 Λ The patterns in Fig. 216 a to c /see p. 62/ are arranged in horizontal strips, in Fig. 217 /see p. 62/ in vertical strips. In Fig. 218 a and b /see p. 62/ the whole surface is filled in with one pattern, in Fig. 219 /see p. 62/ with different patterns. Plaiting patterns are represented only in Figs. 216c and 219. Whole gourds are either decorated only on the upper part (Fig. 220 /see p. 62/), or in a central zone reaching around them (Fig. 221 a to c /see p. 64/; b and c with three parts), or only on two opposite sides (Fig. [4/15] 222 a and b /see p. 64/). The water-carrying vessel of the Šavajé (in Fig. 223 /see p. 64/) shows very crude poker work.

531 4. The artistic activity of the women is quite different ● 462 from this of the men. It is very rare and in part has been taken [512] over from the Brazilians. The women do not use the patterns [17?] of the men. It must be said that the women stand far behind /Figs. 222-224 appear here/ 2 Λ the men artistically; for although they also plait and make pottery, they decorate their products only in the rarest cases. Homemade decorations are found on a mat, the apron of a clay doll, and on spinning whorls. The mat 531 [2045] (Fig. 224 /see p. 64/) is patterned by plaiting in bundles of black-dyed fibers in the fashion illustrated. One sees immediately that on the right the upper pattern is the negative of the lower one. On the doll's apron (Plate II /see p. 48/, Fig. 26) the red and

2 Λ 2 Λ [see p. 64--Analyst]

[Text continues on p. 65]

121 /43/ Three years ago G. P. Murdock published his "World Ethnographic Sample." It goes without saying that an endeavor of this scope can only be incomplete. Now, as far as the Carajá, one of the nine tribes classified under the heading "Eastern Brazil," are concerned, the set of 30 characteristic features of this society in Murdock's attempt displays significant gaps and serious inaccuracies. It is my intention, here and now, to remedy this state of affairs as well as possible, in order to contribute from my side, while concerning myself with only one case among 565, to a fairer calculation of the human probabilities.

114 [122] [101] [127] To accomplish this task I shall use as a base the data that I was able to collect personally, in the company of my wife and aided by the National Swiss Foundation for Scientific Research, during the rainy season of 1954 to 1955 among the Carajá of the south, as well as, naturally, on the information from our predecessors in the field, Ehrenreich, Krause, Baldus, and Lipkind above all. I am using this opportunity to express the great regret that I feel every time I think of the fact that the rich materials collected by Lipkind have never been published in a satisfactory fashion. The Carajá, although they have been known for a long time, are basically misunderstood. To be fair, it must be added that they themselves do not make the task of investigators easy, and it goes without saying that under these circumstances my own contribution must remain fairly fragmentary in view of the too short period of our stay among them.

121 On the other hand I am convinced that the presentation of facts alone — allegedly pure facts — does not help us to become better acquainted with the human condition, and the second aim of my article is to present to you a first attempt at interpretation of the data concerning the Carajá kinship system, which, not without reason, was left blank in Murdock's attempt.

128 To facilitate the comparison I shall follow the framework of the columns of the "World Ethnographic Sample." The 433 [32] 462 [231] Carajá cultivate primarily tropical tubercles, although maize is not lacking; true domesticated animals are absent.

/43 cont./

241 433 462 is not lacking; true domesticated animals are absent. Planting is important as a source of subsistence, but fishing and turtle hunting stand higher in masculine preference as well as being a basis of life. Not only are the men charged with fishing and hunting — less important owing to the scarcity of game — but activity in the gardens is also primarily the business of the men, since the women are satisfied to help as they please, which is undeniably rare among the Amazonian Indians.

433 462 Up to here we are in perfect agreement with the categories chosen by Murdock (Ro, Im, Oo, Dm; columns 1-4). However, in column 5 we find the /44/ first gap. The division of labor assigns gathering to the female sex, except for the harvesting of wild honey, which is considered more as hunting and belongs among the men's tasks. So the Carajá could, after all, be put in the category of "standard division of labor by sex" (thus Ia; column 5).

114 Real difficulties arise when we take into consideration what is properly called social organization. Categorial decisions 361 [221] are not so easy to make there. It is true that our Indians live in compact villages, especially during the rainy seasons. During the rest of the year the Carajá proper like to disperse on the beaches, forming smaller local units, which, nevertheless, are always lined up along the river, the houses of the men (if there are any in the encampments) remaining at the rear, as if the periphery of a circle had been opened and rolled back in a straight line, leaving the center — the houses of the men — at the side of the line. Since the large villages of the rainy season, 361 62 [114] which are all like this and bear a name, are in reality agamous and without clans, but display a certain tendency toward endogamy, the category assigned by Murdock — compact village observing agamy — (Va; column 6), if it is not definitely wrong, is nevertheless to be taken cum grano salis (tendency toward Sd).

59 As for the family structure, it is normally of the extended type, at least during the rainy season, but the extension is not

/16 cont./

296 824 (arikoko). One specimen in the collection is carved out of wood in its natural form (Fig. 4 and Pl. I /see p. 103/, 1).

252 Preparation of food. Directly in front of the house door is found the cooking place, surrounded by low pole frames on which the squeezed manioc is dried. Large earthen pots stand on stones [364] or clay supports over the fire. The ground around is littered with [136] scraps. These heaps are the breeding places of annoying gray flies (the so-called mosca da aldeia), which sting badly and, when they get out of hand, necessitate abandoning the place.

● [462] Untiringly the women are busy throughout the day with dragging in the field produce and firewood, the preparation of manioc, pounding maize, opening palm nuts, and the careful supervision of all the culinary processes, in which the Indian housewife, despite the simplicity of the materials, knows how to achieve a relatively great diversity.

[876] ←

Fig. 4. Tobacco pipe (1/4).

372 824 Fire is still made wholly in the original way by means of the drill (hädä). It consists of two sticks. The thicker one, wood of the urucú plant, is fixed on the ground after a shallow cavity provided with a deep cut at the side is made near one end. Then the point of the second, thinner stick of taquara /Chusquea sp./ is set in this and is twirled between the palms with strong pressure until a hollow is formed at this point, out of which the glowing dust flows through the notch at the side and can be collected. Thus the procedure is precisely the one illustrated and described by Im Thurn (op. cit., p. 258). As in the method used by the Warrau /Warao/, no special tinder is needed. The pulverized wood itself supplies it. To kindle a livelier flame, dry strips of palm leaf are mixed with the easily flammable red resin (tamararu), which is like sealing wax, and then lighted.

/241 cont./
136 yields. The country is also relatively poor in useful animals, and almost all of the few animal species that can be hunted are not eaten by the Indians, with the exception, to be sure, of the wild pig. The birds are very numerous; with the exception of the mutum, however, the Indians do not seem to hunt any other bird. Thus, the water must supply the principal food. The river is extremely rich in fish and turtles; everywhere, in shallow places, in the depths, in lakes, but above all in the tributaries, one comes across a quite startling abundance of fish. But even this abundance is not fully exploited, since a few types of fish are not eaten.

A. The Acquisition of Plant Food.

462 The women essentially are responsible for the gathering of wild plants and fruits, while the men engage above all in procuring animal food (1). The following come under consideration:

> 1. This division of labor is ancient. In the myth, "How the Karajá acquired manioc," it is said of the father that he would not notice the theft of maize because he only knows fishing (see there /see pp. 302-303/).

the small oitŭ fruits, which are gathered in the forest during the first half of October; the pikĭ fruits (lămă), which ripen during the second half of October; the watermelon (kūblăkĕ), which grows on the sandbanks at the place where the banks are connected with the shore. The Indians know exactly those sandbanks on which the melons grow and gather them as early as the end of October when the fruit is not yet quite ripe. Of palm fruits the following are eaten: the seeds of the tucum palm (hălŭ), of the so-called coceiro (āhăndĕtĕ), and of the oaguassu palm (haûlēnĭ), the roasted seeds of which are called haûlēnĭdŏ. The fruits of the jatobá tree (kūwă) and of the genipap (bădēnă) are likewise eaten. Another fruit, from which a black dish is prepared, was called ādŏmõ; it is

/243 cont./

241 out the earth and heap up the beds, the point to loosen the earth, make holes, and lift out the roots. How the rest of the plants are planted is unknown to me; in the plantings ripe for harvest which I wandered through, they seemed to stand jumbled together. They grew so close together that it was hardly possible to pass through on the narrow path. In view of the height of the growths (three to four meters) a survey was not to be had, in contrast to the plantings of the Kayapó, which was laid out very clearly and in which the individual vegetables were planted in groups.

[462] The division of labor in the planting is such that the men lay out the planting and plant manioc and cara, while the planting of cotton, maize, batatas, and urucú is said to be the duty of the women.

The plantings are apparently so laid out that the families or the villages plant in one clearing; a separation within the planting according to families was not discernible, but nevertheless seems to exist.

Everyone works his plot himself; brothers usually work together. If one of them becomes [465] ill, a relative steps in for him. In this case, or if other assistance is required, the yield from the harvest is either divided into two parts or the helper is paid in arrows, pots, lances, net coverings, axes, spun cotton, etc. If widows [736] have grown sons, they plant for them; otherwise she asks the chief to have someone plant for her. He then appoints one of the villagers to take over this duty and pays him for it.

Ill. 83. Planting implement of the Karajá.

The plantings are not protected against damage. They lie in the midst of the forest, without any kind of enclosure, so that animals, especially pigs and birds, do a great deal of damage. These harmful animals are pursued; the birds above all are chased away by cries.

/243 cont./

241 With the ripening of the foodstuff, the harvest begins. It is not gathered all at once, but rather every two or three days the foodstuffs required for this period are brought in. There are seldom larger supplies on hand in the village. This custom is a great [609] obstacle for a longer stay in the villages, for the Indians /244/ do not leave the villages during the stay of strangers (1), but use up

1. Fonseca already observed this custom in 1773. The Karajá had but little food, because the Chavánte had plundered their plantings and the Karajá therefore did not dare go to their plantings. Nor did they dare go hunting or fishing in Fonseca's presence, nor set out for their plantings with Fonseca's soldiers for fear that he might enter their villages in their absence, which they had refused him up to that time. Rev. trim. 8, p. 385.

their supplies, so that after two days there is nothing more on hand, and the stranger must either donate food or go along to the planting or else depart.

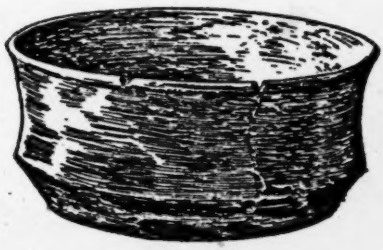
241 285 482 [962] Harvesting is generally done by the women. The harvest is packed into large back-baskets (bĕhūlĕ), which are plaited out of two palm fronds in such a way that the ribs form the two longitudinal poles, and the same sides of the fronds, firmly plaited together, form the bottom, while the other sides, plaited by themselves, make the lattice-like edge (Plate 57, Ill. 1; the back-basket is 116 centimeters long, 34 centimeters wide, and 17 centimeters high). Sometimes the lower edge of the back-baskets is likewise firmly plaited (Plate 57, Ill. 2). The back-basket is worn on two shoulder bands and a forehead band of strong bast. It projects very high above the head, and under the heavy burden people walk with the upper part of the body bent far forward and the knees bent, usually leaning on a staff (Plate 15, Ill. 3). The contents are secured with wide bast bands which are laced across the load from edge to edge.

/252 cont./

372 The fire is never allowed to go out, but rather care is taken to keep it constantly burning. On boat trips the Indians take along glowing bast (hãõdẽ; Ill. 88) or pieces of slowly smoldering wood (hãdẽkẽ) on a sand base in the boat, and similarly when they go to the plantings. Apparently, therefore, they dislike drilling new fire, but would rather transfer the fire to the new place. I often had the drilling of fire demonstrated for me, but the men never succeeded in getting beyond a huge development of smoke. These attempts, however, all happened to take place in wet weather.

Ill. 87. Fire twirler.

Ill. 88. Glow bast.



Ill. 89. Cooking pot, ordinary shape.

[252] [415]

To fan the fire, fans (kõlĩ) which are plaited of palm fronds in simple fashion are used. The cooling fans (Plate 21, Ill. 2) differ from them only in that they have patterning.

252 /253/ Meat is merely roasted; fish and vegetables are [462] eaten roasted and boiled. The preparation of food is the duty of the women; they are busy with it all day. The men, too, however, know how to do it, and on journeys they roast and boil their food themselves in case of emergency. In the villages I never saw roasting hearths; these were found only on sandbanks with traces of camps. Wandering bands use them occasionally. My Karajá always built such roasting hearths

/280 cont./

462 561 A. The division of labor by age and sex is such that the male youths actually do nothing other than to practice the weapons craft and occasionally travel out to fish. In addition, they make their own weapons, as well as their feather ornaments and the cotton dance-belts. The married men, on the other hand, are usually busy; either they work in the plantings, or they go out twice a day to fish for their families, go hunting, plait baskets [589] and hats, build houses, and bring in the harvest. In general, the men, when they are married, have a great deal of work and that is why young people no longer want to get married, having been infected by a few older bachelors who preach the ideal of bachelorhood: idling, smoking, chatting in the mask house.

The women learn their manual skills, such as spinning and weaving, from childhood on. Married women take care of the plantings, the harvest, tend the children, cook, make pottery, spin and weave, and plait mats. In general, to be sure, they have to work the whole day, so that one never sees them unoccupied, but in general their lot is a good one; hard work is never demanded of them, but is always taken over by the men.

412 178 B. Of their ancient tools some have already disappeared (1)

1. Iron tools seem to have penetrated in the previous generation. A 40-year old Indian of the south horde told me that he had not seen work done with stone axes any more, only his mother told him about it.

or are used in another way, they still, however, use stone axes /281/ as striking stones, small stone knives for tattooing, bone needles for sewing, mussel shells as scrapers and spoons, sets of piranha teeth for cutting the strips for plaiting baskets. More and [177] more, however, iron implements are coming in: axes, bush knives, small knives, and shears are used everywhere, likewise [176] iron crochet needles. In spite of these foreign implements, however, the technique has happily kept its ancient character, and only occasionally are innovations, under the influence of the Brazilian inhabitants, To be noted.

/282 cont./

323 317 [462] E. Earths, besides being used as colors (see under "Coloring Substances" /see p. 240 /), are used only for making pottery, which is practiced by the women. The material used is the grayish-white clay (zōŭ) that occurs in strata on the steep banks and, in conical shape, is stored in piles in the villages. For use it is first pulverized very fine and then mixed with a number of additions. The most important addition is māŭzĭ (Pl. 58, Ill. 1), a creation designated by the Brazilian-speaking Indians as the nest of the cupim d'agua, which is found in huge quantities as a covering of the roots and lower branches of the trees along the banks. One finds it piled up in great heaps near the villages. It is burned in the fire, then pounded, and, mixed with water, added to the pottery clay.

323 [824] Another addition is obtained from the purple blossom (ādēnă) of a tree; the blossoms are burned and their ashes mixed in with the clay. This statement by Pedro seems to correspond to the custom of making the clay more resistant by means of the flinty content of the ashes of certain creepers, as reported by Ehrenreich from C. de Magalhães ("Beiträge," p. 19).

The shaping of the vessels is done in the following manner: The bottom is shaped out of a flat cake, on which a low edge is simultaneously worked out. A potter's wheel is absent; an old pot-bottom or most often a rod-sieve, the structure of which is imprinted in the soft clay, serves as a base (Pl. 58, Ill. 2). Smaller vessels are shaped on the hand. /283/ The potter then mixes the gray clay with water, twirls it between the palms of her hands into a roll, places this on her left lower-arm, and, with the right index finger, presses a longitudinal groove into it (Ill. 129). The roll is now placed with the groove on the edge of the bottom piece and is then pressed flat toward the top (Ill. 130). It is so arranged that the roll corresponds exactly to the circumference of the vessel. Roll is placed upon roll in this manner and then smeared together with the hand or even with a smoothing stone, until the vessel is finished.

/285 cont./

237 two holes in the center are sewed on the belt of the long string-
321 skirts of the girls (Ill. 69), as well as on the cylinder-bands of the dance masks. As spoons and scrapers they use mother-of-pearl mussel shells, which are only slightly worked, but are usually used in the crude state.

287 Concerning the feather technique, see below in connection with the tying, knotting, and plaiting technique /see pp. 233 ff./.

824 The utilization of the vegetable kingdom is very extensive. The cane species are used remarkably little; apparently the region is poor in them.

G. The wood of trees is made into boats, poles, oars, mortars and pestles, stools, lances, bows, throwing boards, arrow points, manioc grating boards, lip plugs, comb teeth, etc. Soft or hard woods are used, depending on the purpose. I was not always able to learn which kinds of wood were used for the individual implements. Spears consist of so-called aruera wood, bows of hard palm wood, boat poles of long, slender trees with very light wood. Soft wood is used for stools, lip plugs, and manioc grating boards; all the other implements consist of hard wood. Of the cane species, taquara is used as arrow shafts, gibade and similar types as ear rods.

396 I am most fully informed about boatbuilding. The boats
[462] are built by the men. All of them understand this art, though
[437] many confine themselves to buying boats from others in exchange
[463] for an iron axe. /286/ Apparently certain persons make boats in larger numbers for the village and then sell them. Thus, a few hours downstream from Schischá I met two families from this village who had erected temporary huts for themselves here in the wilderness, in order to build boats in the vicinity. The making of a small boat is said to take four days, a larger one eight days. These time estimates, however, seem to me to be
[824] very low. The trunk of the lantim tree (Calophyllum: dã̄lĩ̄ŏ̄) is used as material for the boats; Ehrenreich mentions pau d'arco and jatoba, Königswald also jatahy and others. The trees are felled in the forest and crudely worked; first the outer shape is hewed out with an ax and then the interior is likewise hollowed

/286 cont./

pyrography. Of the other fruits, jequitiba is used for tobacco pipes, hollowed out and crudely carved on the outside (Ills. 103 and 104); Thevetia is used for necklaces or pendants on belts, etc. The latter usually bear a small /287/ bunch of feathers in the hollow. Other small, whitish fruits are bored and strung as chains. In Ehrenreich's collection there is a small bowl, made out of a timbo fruit, for storing the urucú color (Berlin 3876).

The bark of trees is made into women's aprons. Above all the bark of the gameleira is used, which furnishes the reddish aprons (ăndāhūlĕ). Other species (also gameleira?) furnish red materials (ămbūŏdă) or white shiny materials (hidēūlĕ). Ehrenreich, in addition, also mentions Apeiba jangada (Berlin 3696). The preparation is as follows: Thick branches of the trees concerned are hewed off in the required length (one and a half to two meters) and brought into the house. Here the men, with an angular stone, strike off the solid pieces of bark, slit the bark lengthwise, and peel it off. The further treatment is the task of the women: the pieces of bark are soaked, laid folded together on the manioc mortar turned upside down, and are now beaten with a flat stone, usually an old stone ax, until they are completely soft.

Ill. 134 a, b.
Embira: a) wound on a rod,
b) rolled up.

H. Bast is used in wide layers as an ornamental binding material and in fine strands as material for strings and for knotting mats.

As ornamental binding material, the bast of Malvaceae (embira: dõdĕ, etc.) is used above all. There are light red, red, and black varieties. It is kept in all widths: the finest (0.3 centimeters wide) is wound on rods (Ill. 134a), the wider (2.5-4 centimeters wide) is rolled up into stout rolls in such a way that the colored, shiny side is on the inside (Ill. 134b). They are used

/288 cont./

286 is knotted in such a way that the knots come in the center of the length of the mesh. The meshes of the second and subsequent rows are hooked into those of the preceding one and knotted on their lower end. The method of the knot formation is shown in Ill. 136 a, b.

285 For knotting the large sleeping and sitting mats, untwisted
284 buriti bast-fibers are used. These are laid side by side in bunches and these bunches are wound alternately with two twisted bast-fiber strings, so that a continuous weft runs from side to side. On the edge the two strings are twisted together, led along the edge for about three and a half centimeters, and then again plaited through the bunches. Thus, one /Plate 58 appears here/ /289/ weft runs through the whole mat. (See the sample plaiting, Ill. 137 /see p. 217/.) At greater intervals, every 10-20 centimeters, a twisted bast string runs between the bunches and parallel to them, in order to give the mat more firmness (b in Ill. 138). The weft does not start at the end of the mat and is not led through to the other end; rather, on both of the narrow sides the ends of
285 the bunches remain free as fringe. Such mats in large dimensions are used to make the protective walls and protective roofs, as well as sleeping and sitting mats. Smaller mats are carried by pregnant women; they are put around the lower body and held together in front with the hands. I never saw small mats patterned with black embira threads as an underlayer for the feet during the continuous standing on the hot sandbanks, such as Ehrenreich describes (Berlin 3907; "Beiträge," p. 21). I obtained a patterned sleeping mat, however, the design of which was made by plaiting in black-colored bast strips (Ill. 22).

Small carrying-sacks (masĭ) are made in the same way as these mats; the bottoms of these are sometimes plaited cross-shaped (Pl. 57, Ills. 5, 6). The edge is reinforced; the carrying-band likewise consists of buriti bast-fibers.

28
462 The division of labor in ropemaking and knotting is such that the making of the fiber material is usually incumbent on the women, whereas the twisting of the cords is practiced by men and women, but is usually done only as needed. The knotting of the

[TEXT Continues on p. 220]

28 /289 cont./
462 nets is a task for the men, that of the mats a task for the women.
285 Usually several women work together on a mat; it is not difficult work, but the hard pulling and constant twisting of the weft threads (they are twisted only when they are plaited through) affects the fingers so much that deep, calloused ridges run across
[963] the finger tips of the plaiters. Apparently there are women in the villages who provide the entire village with mats; at least large supplies of them were found in certain houses, and to buy them I was sent into specific huts where mats were made.

[824] For the plaiting which is done by the men, strips of buriti
[962] bast and the leaf pinnae of the oaguassu palm are used. The
294 strips of buriti bast are used only in the making of hats. Appar-
[197] ently the method of making hats is copied from the neighboring Brazilians. At least the shape is the same; but whether all the types of plaited strips which are sewed together spirally into a hat correspond to Brazilian designs, or whether there are innovations here, I do not know. The most common design, consisting of four-part strips with a notched edge, seems to be Brazilian, the other two, the eleven-part strip with a smooth edge and the nine-part strip with a smooth, double edge, may be original forms in view of the plaiting skill of the Indians (Ill. 139 a-c). These strips are sewed together with fine bast threads and a bone needle four centimeters long (Ill. 140).

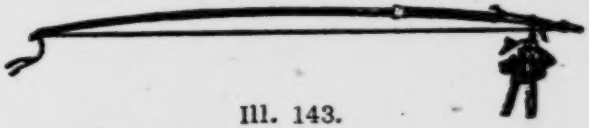
285 For all other plaiting the leaf pinnae of the oaguassu palm are used. The material for this is stored in the houses in large /290/ quantities, mostly lying on the floor under mats; in Schischá it also lay on special forked racks on the long sides and in the roundings of the houses.

In the same way as for the house covering, two oaguassu fronds are laid with the ribs one on top of the other in the making of walls, fans, and eye shades, except that in this case the individual pinnae /Ills. 139 and 140 appear here/ are then plaited together. See the beginning of a piece of plaiting in Ill. 5 on Plate 58 /see p. 219/.

/292 cont./

285 of the lid-half, is pulled through the outer oval of this half from below upward, forms a large carrying /293/ band over the lid, and on the other side leads down to the bottom rods in the same manner. If one wishes to open the basket, the lid-half slides up on the thread (Pl. 57, Ill. 16). At the same time, however, the thread also serves for closure during transport: on either side one makes a loop which is put over the ends of the rod of the lid-half and pulled tight (Ill. 142g).

Sieves and sieve-baskets are made entirely differently
[284] (wãlilisi; Pl. 55, Ills. 2 and 3). They are made out of shavings of flexible creepers (according to Ehrenreich, arimbamba). The shavings run radially and are interwoven concentrically with similar switches (two each). On the bottom they cross in four groups. In Ehrenreich's specimens the plaiting is in part so tight
[283] (Berlin 3898) that the utensil is useless as a sieve. Such tight



Ill. 143.
Bow for picking apart the cotton.

baskets serve as containers for raw cotton in spinning.

Rod-sieves consist of fine rods placed parallel, which are bound together at considerable intervals with two strings (Pl. 55, Ill. 1).

I did not see among the Karajá the other kinds of baskets and bags mentioned by Ehrenreich: small palm-leaf baskets with rectangular bottom, square baskets, small bags with flap lids made of carandasinha palm fiber, bottle-shaped flexible baskets (moti), hanging baskets (Berlin 3879), and lid-baskets (Berlin 3900) made of flexible cipo plaiting.

283 I. Just as varied and skillful are the treatment and the
462 utilization of cotton, which are incumbent on the women. Cotton
248 is grown in the plantings; tending it is the duty of the woman. The harvested cotton is stored in baskets. Before it is spun, it is

/293 cont./

283 first cleaned and picked. A small bow (wãsihuãtã; Ill. 143) is used for this purpose. One puts the cotton on a mat in front of one, holds the bow close to it, and lets the bowstring snap into it. In this way the cotton is loosened up, the impurities are taken out, and it is picked apart into a thin band about four centimeters wide. This band is then twisted at one end and fastened to the top of the spindle (Pl. 58, Ill. 6).

Spinning. The thread is twisted with the palm of the hand on the thigh; then one lets the spindle spin, in order to tighten the twist. When a thread about one meter long has been made in this way, the spindle is stopped, any irregularities of the thread are evened out by pulling it apart and retwisting it, the thread is wound on the spindle, it is again fastened to the knob on top, and the twisting begins anew. Thicker threads, too, are twisted together out of two spun threads in this manner. /294/

[462] Spinning is the task of the women, especially the girls, who acquire this skill at an early age.

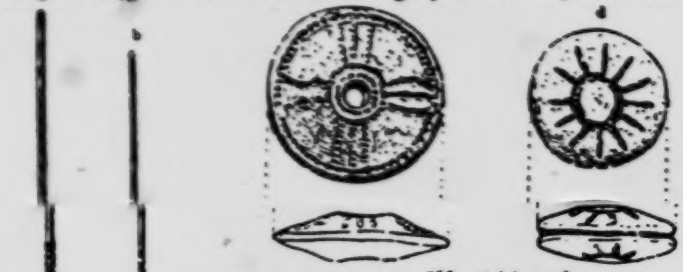
The spindles consist of a black wooden stem 32-44 centimeters long (ãsõtã), which bears a small knob at the top and exhibits an extended thickening at the bottom. The spindle whorl [(kŭ)dãwã], which consists of bone, clay, a mass of white earth, or wax, is pushed up on it. I came across spindle whorls of bark, such as Ehrenreich brought back (Berlin 3939), only in children's spindles (see "Toys" /see p. 241 /). Bone whorls are plane-parallel, 4 1/2-6 1/2 centimeters in diameter (Ill. 144a). Breastplate bones of the tartaruga turtle are usually used for this. Clay whorls consist of crudely fired, gray pottery clay and are usually attached to the staff with wax. /Ills. 144 and 145 appear here./ Their shape is flat or slightly double-conical. Only

[531] rarely are they decorated; I once saw a cross-like decoration (Ill. 144c), another whorl bears an incised decoration on its red-colored surface. Whorls of white earth [mãŭlẽ, mãnã(k)ŭlã] are usually slightly double-conical in shape (Ill. 144b). In the village on the Tapirapé mouth I obtained two whorl-like objects made out of such white earth, but they are not perforated. Incised on

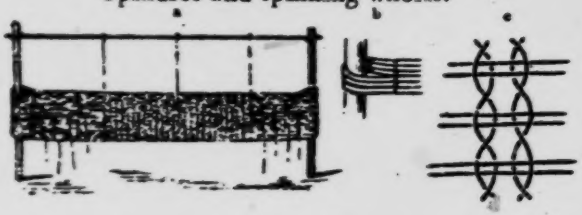
/294 cont./

283 both sides, they bear a circle with rays; the grooves are drawn in red and black (Ill. 144d). Whorls of wax in a double-conical shape are very common. I did not happen to acquire any from the Karajá; they are the same, however, as those brought back from the Šavajé (see below /see p. 328 /).

/295/ The thread (ãsõtãkẽ) is stored wound in balls (Pl. 58, Ill. 7). These balls are apparently an Indian invention; at any rate the Karajá were extremely astonished when they saw my balls of string. Their balls are roughly cube-shaped, from nine



Ill. 144 a-d.
Spindles and spinning whorls.



Ill. 145 a-c.
Plaiting of the net coverings.
a) Plaiting apparatus. b) Winding the warp.
c) The plaiting in of the weft.

to ten centimeters long on each side.

283 286 Working with cotton threads, which either retain their natural color or are blackened with earth color, is done by plaiting, crocheting, and knotting.

[462] Plaiting is the work of the men, crocheting and knotting that of the women. The cotton threads are plaited into four-edged cords, for example, hip cords.

/329 cont./

763 Death and burial (2). The occurrence of death is recog-

[114]

2. I myself did not observe a death; my statements about this are based on the unanimous accounts of various Indians.

nized when /330/ the deceased is called to and shaken; if he gives no answer, he is regarded as surely dead.

764 The corpse is then smeared with resin (dõmãlẽ) upon which are glued white down feathers. The face is painted with urucú (perhaps also only a section from the ear across the chin to the other ear), the lip plug is removed, arara feathers are stuck into the ears; the rest of the ornaments are also put on (for example, the bead chains are hung around women). Then the body is wrapped in a sleeping mat and tied to a pole which is taken to a stake standing upright in the sand away from the village. I could not find out whether it is tied to this or what else happens to it. Here the laments of the women and relatives take place. The young men hold the death watch here; in return they are provided with food by the brother of the deceased. If the dead person died in the evening, he is buried the next morning; if he died during the day, he is removed as quickly as possible. Burial [762] is the task of the men; the women content themselves with weeping and lamenting. All the dead are treated and buried in the same way.

The dead are buried in the cemetery. There are several large collective cemeteries (urn cemeteries); in addition there seem to be smaller village cemeteries for burials. All of them lie on high banks above the high-water mark, some of them days' journeys in distance from the village. Cemeteries to be newly laid out are marked out by the oldest Karajá. The Karajá seek by all means to be buried in their tribal cemeteries. Thus, Kabiá from Leopoldina brought his dead grandchild to the cemetery at Schischá (three days' journey downstream from Leopoldina) because there was "unconsecrated ground" there.

6:Cook M-3,4. (ca. 1900) 1909
SP9 Caraja SP9

the open air, just in front of the entrance to each hut, is the cooking place, which is surrounded by a slightly raised platform of sticks on which the manioc meal is evaporated. Large earthen pots are seen resting upon stands over the fire; while the ground around is littered with garbage, which, as previously mentioned, ferments, and attracts and breeds swarms of pestiferous flies. The women are as busy as bees, and toil untiringly throughout the whole of each and every day, gathering fruits and vegetables from forest and field, going many miles distant and returning, staggering under heavy burdens, gathering firewood, preparing manioc meal, pulverizing corn in wooden mortars, splitting the small cocoa nuts, and attending to the cooking. Dr. Ehrenreich says of the Karayá wife, that though her raw materials are limited, she, nevertheless, succeeds in producing a good assortment of food. Among all savage and semi-barbarous peoples, the females labor more assiduously than the males, and the burden of providing for the family seems to fall more upon them than upon the males. Here again, we observe the similarity between these children of Nature and the wild creatures, upon the female of whom falls the burden of providing for the brood.

The Karayá have no matches, or any of the appliances of civilization for kindling a fire, but still adhere to the ancient method. Fire is produced by means of two sticks of wood, one, which is of urucú, being secured to the ground. This is grooved and morticed in such a way that by setting the point of the second piece, which is a taquára reed, into the groove and causing it to spin rapidly by rolling it between the palms, glowing dust issues from the side of the first piece, with which a fire is kindled. Punk is not used; the piece of wood that is bored takes the place of punk. With this glowing dust, strips of palm-leaves are ignited after being daubed with easily inflammable red resin. But the primitive housekeepers seldom have to resort to this method of producing fire as they do not allow their camp-fires to die out. When on a journey, they carry fire-brands, or glowing coals, which are kept alive at times by being buried in the sand.

6:Cook M-3,4 (ca. 1900) 1909
SP9 Caraja SP9

as a reserve, are kept wound around the bow. The Karayá take great pride in their bows, ornamenting them beautifully with tassels of brilliant feathers. 411 [531]

They use several different styles of arrows. Some are harpoon-like for fishing purposes; others are made with broad blades for hunting; while still others are for use in war. They are all made with the utmost care, as much as one or two days being consumed in the making of but one. Two or three different kinds of wood are always used in constructing a single arrow, one kind being for the spear, or lance part, another kind—heavy palm wood—for the middle staff, and light bamboo wood for the base, and all are spliced and bound together with the greatest nicety by means of long, narrow strips of bark taken from certain climbers, and finally, the weapon is burnished. It is about four feet in length. [461] [824] [284]

The weapons used for fighting at close quarters, which is the method of warfare liked best, are heavy clubs and lances. The clubs are of two kinds—first, shovel-like clubs and round clubs, resembling base-ball bats, varying in length from three to four and a half feet. The lances are nine or ten feet in length, the shaft being of palm wood, and the point, the shin-bone of the spotted *onca*—jaguar—or of a deer. A beautiful, basket-like work of black and white wooden strips is woven, or braided, tightly over the shaft of the spear, and to this is attached tassels of brilliant plumage. The Karayá have spear-throwing sticks, but I understand they are no longer used in war, but for sport only. The contrivance is a long strip of wood so formed that it can be used, sling-like to hurl a spear. In common with all the savage tribes of South America, the weapons, implements, ornaments and ceremonial instruments are all made by the men of the Karayá, while the women make only the household utensils. [1126] [824] [237] [531] 462 171

The Karayá housewife, therefore, makes several styles of pots and pans; but pottery has not yet reached a very high degree of perfection with this tribe for the forms are simple and crude. They do not make pots in the form of natural objects as do the tribes of the Xingú river. Utility, and this 323

Brazil.

593 The husband does not eat with his family, but instead
[264] with the family of his married sister, and is considered a member of his sister's family. Secondly, his share of the pro-
[768] ceeds of the day's hunting and fishing, does not go to his own hut, but to that of his sister; and, lastly, if his wife should die leaving dependent children, they are taken in charge by her parents and the widower again becomes one of the bachelors.

582 A Karayá woman is not permitted to marry an alien, unless
648 he will become adopted, or naturalized, into the tribe, and will consent to reside permanently at the wife's native village.
593 The Karayá wife appears to be considered the equal of her husband in many respects, for he never takes any important step in life without first consulting her. Even the village chief divides his honors with his wife. Furthermore, the wife as
[462] well as the husband, has an important part to perform, not only in the family, but in the social economy of the village; though her part is to do the heavy, laborious work, while her man does the light and fancy-work; his only heavy work being to hunt and fish.

595 The men usually have but one wife, though a few have
582 two. One reason for having two wives seems to be owing to the custom prevailing among nearly all South American tribes that the young men marry the older women, and the old men marry the young women. Therefore, when the first wife becomes old, her young husband takes to himself a youth-
163 ful wife. Perhaps this custom of the young men marrying the
[582] older women will account in part for the small number of
[861] children born to these primitive races; though another reason may be that children are allowed to nurse until they are six
171 or seven years of age. The custom of aged men marrying girls fourteen or fifteen years of age is common among the
847 civilized people of Brazil. Abortion among the Karayá is practiced only when the husband demands it. Whenever a
586 couple cannot live together harmoniously, the husband is al-
587 lowed to trade his wife for another woman. If he should drive her away, he will not be permitted to marry another
000 woman, though he may take a concubine. The adulterous